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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,443

04/04/2006

Hubert Francois Cecile Martens

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BRIARCLIFF MANOR, NY 10510

EXAMINER

NGUYEN, LINH THI

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,443	Applicant(s) MARTENS ET AL.	
	Examiner LINH T. NGUYEN	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9-20 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 5-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :-----> 9/12/07

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 11, 14, 20 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 4 and 20 recites the broad recitation "a duty cycle smaller than 50%", and the claim also recites "a duty cycle smaller than 10%" which is the narrower statement of the range/limitation. Claim 11 recites "focus marks cover at least one track" and then recites "preferably more". Claim 14 recites "lengths at least 6T" and then recites "8T to 14T".

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 9-11, 14, 15, 17-19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al (US Publication 20020024925).

In regards to claims 1 and 17, Kato et al discloses a record carrier of a writable type for recording information by writing marks in a track on a recording layer via a beam of radiation entering through an entrance face of the record carrier and constituting a scanning spot having an effective diameter on the track (Fig. 5), the marks having lengths corresponding to a number of channel bit lengths T and the shortest marks having a length of a predefined minimum number d of channel bit lengths T for being detectable via the scanning spot having said effective diameter, the recording layer (Paragraph [0084])) comprising a pregroove (14) for indicating the track (Fig. 5, element 12), the pregroove exhibiting a wobble constituted by displacements of the pregroove in a direction transverse to the longitudinal direction of the track (Fig. 5), and the pregroove comprising a pregroove modulation of the depth and/or width of pregroove areas for constituting a carrier pattern containing focus marks (18,19) (Fig. 5, Gr and Gd), the focus marks having lengths substantially larger than the predefined minimum number d of channel bit lengths T for being substantially longer than the effective diameter of the scanning spot (Fig. 5, element B), and the carrier pattern constituting a focus area (12) at a predefined location on the recording layer (Paragraph [0061], lines 1-3).

In regards to claims 2 and 18, Kato et al discloses a record carrier as claimed in claim 1, wherein the focus-marks have lengths of at least two times the predefined minimum number d of channel bit lengths T (Paragraph [0084]).

In regards to claims 3 and 19, Kato et al discloses a record carrier as claimed in claim 1, wherein the focus marks comprise land focus marks of zero depth alternating with pit focus marks of a predefined depth and width (Figs. 5 and 6).

In regards to claim 9, Kato et al discloses a record carrier as claimed in claim 1, wherein a start position of the land focus marks is aligned with a sync of the wobble (Fig. 10).

In regards to claim 10, Kato et al discloses a record carrier as claimed in claim 1, wherein the focus marks are located only within a monotone wobble area (Fig. 5).

In regards to claim 11, Kato et al discloses a record carrier as claimed in claim 1, wherein the focus marks cover at least one track, preferably more (Fig. 5).

In regards to claim 14, Kato et al discloses a record carrier as claimed in claim 2, wherein the predefined minimum number d is 3 channel bit lengths T ($d=3 T$), and the focus marks have lengths of at least $6 T$, in particular the lengths being in the range of $8 T$ to $14 T$ (Paragraph [0084]).

In regards to claim 15, Kato et al discloses a record carrier as claimed in claim 1, wherein the carrier pattern substantially only contains said focus marks (Fig. 5).

In regards to claim 22, Kato et al discloses a device as claimed in claim 17, wherein the focus adjustment unit (32) is arranged for writing a focus test pattern and for further adjusting the focus servo means (25) in dependence on jitter or errors detected during subsequently reading said test pattern (Fig. 9, element 216).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by Kato et al in view of Wilkinson et al (US Patent Number 6570840).

In regards to claims 4 and 20, Kato et al discloses everything claimed in claim 1. However, does not disclose wherein the land focus marks and the pit focus marks succeed each other with a duty cycle smaller than 50%, preferably smaller than 10%, the pit focus marks being longer.

In the same field of endeavor, Wilkinson et al discloses wherein the land focus marks and the pit focus marks succeed each other with a duty cycle smaller than 50%, preferably smaller

than 10%, the pit focus marks being longer (Column 9, lines 50-56). At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the record carrier of Kato et al to have a duty cycle of 50% as suggested by Wilkinson et al. The motivation for doing so would have been to have the correct length for a written mark.

Claims 12, 13, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over anticipated by Kato et al in view of Hirotsune et al (US Patent Number 6856589).

In regards to claims 12 and 21, Kato et al discloses everything claimed in claim 1. However, Kato et al does not disclose a record carrier, wherein the record carrier comprises at least a first recording layer (40) and a second recording layer (41), the first recording layer being present at a position closer to the entrance face than the second recording layer, and each recording layer having the focus marks.

In the same field of endeavor, Hirotsune et al discloses a record carrier, wherein the record carrier comprises at least a first recording layer (40) and a second recording layer (41), the first recording layer being present at a position closer to the entrance face than the second recording layer, and each recording layer having the focus marks (Fig. 7). At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify the recording carrier of Kato et al to have dual layer of recording carrier as suggested by Hirotsune et al. The motivation for doing so would have been able to record more data on a double layer disk.

In regards to claim 13, Kato et al does not but Hirotsune et al discloses Record carrier, wherein each recording layer comprises the focus marks at a substantially corresponding radial position (Fig. 7). The motivation is the same as claim 12 above.

Claims 16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al in view of Kondo (US Publication Number 20070133382).

In regards to claims 16 and 23, Kato et al discloses everything claimed in claim 1. However, Kato et al does not but Kondo et al discloses a recording carrier, wherein the pregroove modulation is representing additional information encoded by the focus marks according to a predefined channel coding algorithm, which predefined channel coding algorithm differs from a channel coding algorithm representing said recorded information (Paragraph [0175], discloses different type of modulations). At the time of the invention it would have been obvious to person of ordinary skill in the art to modify the recording carrier of Kato et al to have different modulations as suggested by Kondo et al. The motivation for doing so would have been to record signals accurately according to the type of modulation.

Allowable Subject Matter

Claims 5-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In regards to claim 5, none of the reference alone or in combination discloses wherein the pit focus marks have lengths of at least 100 channel bit lengths T and wherein said duty cycle is less than 10%.

Claims 6-8 depends of claim 5, therefore, are allowable for the same reason.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Korpel and Wilkinson et al discloses recording of prepit with a duty cycle of 50% or more.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH T. NGUYEN whose telephone number is (571)272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN
March 19, 2008

/Wayne R. Young/
Supervisory Patent Examiner, Art Unit 2627